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**PXIe-1487**



Manufacturer: NI

**Board Assembly Part Numbers** (Refer to Procedure 1 for identification procedure):

Part Number and Revision	Description
138516A-01L or later	MODULE ASSY, PXIE-1487, FAM ONLY, 8 CH INPUT DESERIALIZER
138516A-02L or later	MODULE ASSY, PXIE-1487, FAM ONLY, 8 CH OUTPUT SERIALIZER
138516A-03L or later	MODULE ASSY, PXIE-1487, FAM ONLY, 4 CH INPUT/4 CH OUTPUT SERDES
138516A-04L or later	MODULE ASSY, PXIE-1487, FAM ONLY, 8 CH INPUT DESERIALIZER W/ TUNNELING
138516A-05L or later	MODULE ASSY, PXIE-1487, FAM ONLY, 8 CH OUTPUT SERIALIZER W/ TUNNELING
138516A-06L or later	MODULE ASSY, PXIE-1487, FAM ONLY, 4 CH INPUT/4 CH OUTPUT SERDES W/ TUNNELING
138516A-08L or later	MODULE ASSY, PXIE-1487, FAM ONLY, 8 CH OUTPUT SERIALIZER W/ TUNNELING, HALF SPEED
138516A-09L or later	MODULE ASSY, PXIE-1487, FAM ONLY, 4 CH INPUT/4 CH OUTPUT SERDES W/ TUNNELING, HALF SPEED
138519A-01L or later	MODULE ASSY, PXIE-1486, FAM ONLY, 8 CH INPUT DESERIALIZER
138519A-02L or later	MODULE ASSY, PXIE-1486, FAM ONLY, 8 CH OUTPUT SERIALIZER
138519A-03L or later	MODULE ASSY, PXIE-1486, FAM ONLY, 4 CH INPUT/4 CH OUTPUT SERDES

**Volatile Memory**

<i>Target Data</i>	<i>Type</i>	<i>Size</i>	<i>Battery Backup</i>	<i>User<sup>1</sup> Accessible</i>	<i>System Accessible</i>	<i>Sanitization Procedure</i>
none						

**Non-Volatile Memory (incl. Media Storage)**

<i>Target Data</i>	<i>Type</i>	<i>Size</i>	<i>Battery Backup</i>	<i>User Accessible</i>	<i>System Accessible</i>	<i>Sanitization Procedure</i>
FPGA Configuration Logic (x2)	FPGA	Intel 10M04 (x2)	No	No	Yes	None
Adapter module ID (x2)	EEPROM	32 KB (x2)	No	No	Yes	None
Calibration constants	Flash	64 KB	No	Yes	Yes	Procedure 2
POSC	Flash	512 KB	No	No	Yes	None

<sup>1</sup> Refer to *Terms and Definitions* section for clarification of *User* and *System Accessible*



## Procedures

### Procedure 1 – Board Assembly Part Number identification:

Refer to the label applied to the surface of your product. The Assembly Part Number should be formatted as “P/N: 13851#a-##L” where “a” is the letter revision of the assembly (e.g. A, B, C...) and “#” is the number that identifies the model from the Board Assembly Part Number table.

### Procedure 2 – Calibration Constants Flash:

Requirements: LabVIEW and LabVIEW FPGA 2020 or later, and FlexRIO with Integrated I/O version 20.6.0 or later that supports this model.

The Calibration Constants Flash can be cleared by using the FlexRIO API to overwrite the memory space with arbitrary values. To clear the flash storage with this method, complete the following steps:

1. Find and open the example LabVIEW Project “Read-Write Calibration Data” at “C:\Program Files (x86)\National Instruments\<LabVIEW>\examples\FlexRIO\System Calibration\” (replace <LabVIEW> with version of LabVIEW running on system).
  - a. Alternatively, create a new VI and drop the “Write Calibration Data” VI from the FlexRIO API palette.
2. Select your FlexRIO device from **FPGA Resource** dropdown and set **Calibration Operation** to **Write**.
3. Run VI with **Calibration Data** set to 0, or other arbitrary value, to clear values in flash memory.
4. Repeat Step 3 for entire memory space to clear entire flash memory. Set the **Read** option for the **Calibration Operation** to verify data has been cleared or to check sections of memory for other unintended values.



## Terms and Definitions

### **Cycle Power:**

The process of completely removing power from the device and its components and allowing for adequate discharge. This process includes a complete shutdown of the PC and/or chassis containing the device; a reboot is not sufficient for the completion of this process.

### **Volatile Memory:**

Requires power to maintain the stored information. When power is removed from this memory, its contents are lost. This type of memory typically contains application specific data such as capture waveforms.

### **Non-Volatile Memory:**

Power is not required to maintain the stored information. Device retains its contents when power is removed. This type of memory typically contains information necessary to boot, configure, or calibrate the product or may include device power up states.

### **User Accessible:**

The component is read and/or write addressable such that a user can store arbitrary information to the component from the host using a publicly distributed NI tool, such as a Driver API, the System Configuration API, or MAX.

### **System Accessible:**

The component is read and/or write addressable from the host without the need to physically alter the product.

### **Clearing:**

Per *NIST Special Publication 800-88 Revision 1*, “clearing” is a logical technique to sanitize data in all User Accessible storage locations for protection against simple non-invasive data recovery techniques using the same interface available to the user; typically applied through the standard read and write commands to the storage device.

### **Sanitization:**

Per *NIST Special Publication 800-88 Revision 1*, “sanitization” is a process to render access to “Target Data” on the media infeasible for a given level of effort. In this document, clearing is the degree of sanitization described.